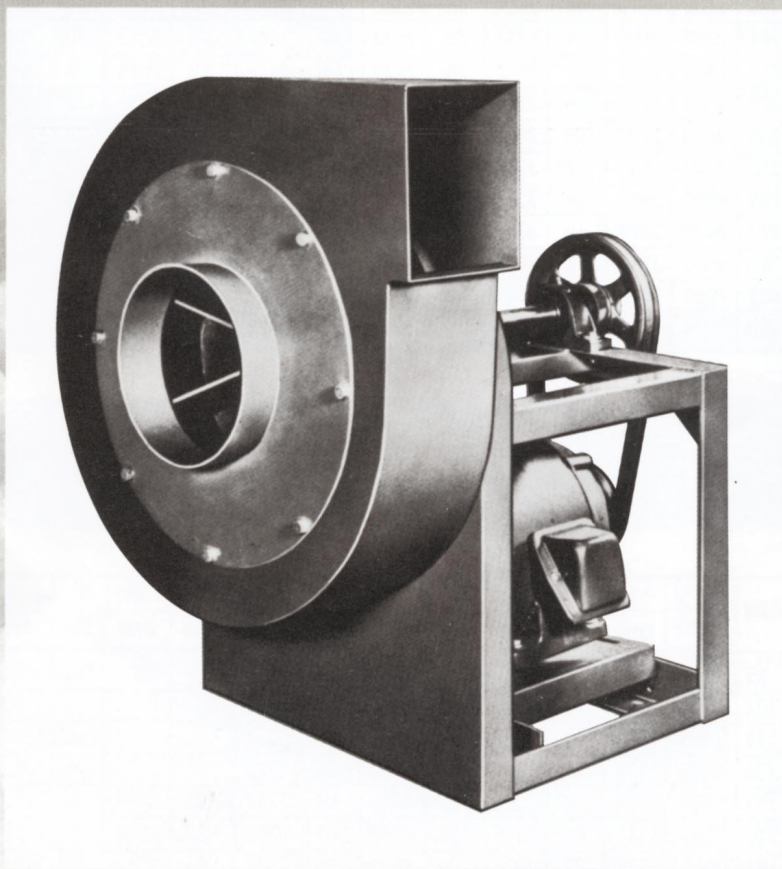




RADIAL BLADE BLOWERS

BELT DRIVE



PEERLESS-WINSMITH, INC.
**VENTILATION
EQUIPMENT**

PEERLESS ELECTRIC

MADISON MANUFACTURING COMPANY

AFFILIATE OF PEERLESS-WINSMITH, INC.

RADIAL BLADE HIGH PRESSURE BLOWERS (BELT DRIVE)

BELT DRIVE PERFORMANCE

TIP SPEED (FPM) = 2.029 X RPM OUTLET (.06 SQ. FT. INSIDE) INLET (.792 SQ. FT. INSIDE) MAX. RPM = 4506 RPM
 WHEEL DIAMETER - 7 3/4" (3" X 3" OUTSIDE) (4" DIA. OUTSIDE)

PWB-8

VOL	VEL	.50 SP		1.00 SP		1.5 SP		2.0 SP		2.5 SP		3.0 SP		3.5 SP		4.0 SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	1000	1385	0.01	1824	0.03	2185	0.04	-	-	-	-	-	-	-	-	-	-
72	1200	1464	0.02	1887	0.03	2227	0.05	2529	0.07	-	-	-	-	-	-	-	-
84	1400	1557	0.02	1957	0.04	2285	0.06	2578	0.08	2841	0.1	3086	0.12	-	-	-	-
96	1600	1653	0.03	2036	0.05	2355	0.07	2636	0.09	2891	0.11	3128	0.14	3350	0.16	3560	0.19
108	1800	1755	0.04	2116	0.05	2426	0.08	2699	0.1	2950	0.12	3180	0.15	3396	0.18	3600	0.21
120	2000	1860	0.04	2211	0.06	2509	0.09	2770	0.11	3016	0.14	3240	0.17	3450	0.19	3649	0.22
132	2200	1969	0.05	2303	0.08	2591	0.1	2851	0.13	3087	0.15	3306	0.18	3512	0.21	3706	0.24
144	2400	2086	0.06	2401	0.09	2682	0.11	2928	0.14	3164	0.17	3374	0.2	3579	0.23	3769	0.26
156	2600	2203	0.08	2507	0.1	2776	0.13	3015	0.16	3243	0.19	3451	0.22	3650	0.25	3836	0.29
168	2800	2323	0.09	2612	0.12	2872	0.15	3110	0.18	3328	0.21	3534	0.24	3725	0.28	3911	0.31
180	3000	2448	0.11	2722	0.14	2973	0.17	3197	0.2	3415	0.23	3612	0.27	3807	0.3	3985	0.34
192	3200	2574	0.13	2833	0.16	3074	0.19	3300	0.22	3507	0.26	3703	0.29	3890	0.33	4065	0.37
204	3400	2705	0.15	2950	0.18	3181	0.21	3395	0.25	3600	0.29	3794	0.32	3976	0.36	4147	0.4
216	3600	2838	0.17	3068	0.2	3288	0.24	3502	0.28	3697	0.32	3880	0.35	4064	0.4	4231	0.44
228	3800	2967	0.2	3189	0.23	3405	0.27	3605	0.31	3796	0.35	3982	0.39	4154	0.43	4320	0.47
240	4000	3102	0.23	3311	0.26	3513	0.3	3714	0.34	3901	0.38	4079	0.43	4248	0.47	4414	0.51
252	4200	3236	0.26	3432	0.29	3635	0.34	3820	0.38	4004	0.42	4177	0.46	4343	0.51	4504	0.56
264	4400	3370	0.29	3559	0.33	3749	0.37	3932	0.42	4112	0.46	4279	0.51	4443	0.55	-	-
276	4600	3506	0.33	3690	0.37	3869	0.41	4049	0.46	4220	0.51	4386	0.55	-	-	-	-
288	4800	3642	0.37	3811	0.41	3993	0.46	4164	0.51	4332	0.55	4492	0.6	-	-	-	-
300	5000	3778	0.42	3947	0.46	4110	0.5	4283	0.56	4440	0.6	-	-	-	-	-	-
312	5200	3915	0.46	4082	0.51	4240	0.56	4396	0.6	-	-	-	-	-	-	-	-
324	5400	4053	0.52	4212	0.56	4369	0.61	-	-	-	-	-	-	-	-	-	-
336	5600	4191	0.57	4342	0.62	4489	0.67	-	-	-	-	-	-	-	-	-	-
348	5800	4330	0.63	4477	0.68	-	-	-	-	-	-	-	-	-	-	-	-
360	6000	4470	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PERFORMANCE SHOWN IS FOR INSTALLATION TYPE B--- FREE INLET, DUCTED OUTLET.
 PERFORMANCE RATINGS DO NOT INCLUDE THE EFFECTS OF APPURTENANCES IN THE AIRSTREAM.
 POWER RATING (BHP) DOES NOT INCLUDE DRIVE LOSSES.

TIP SPEED (FPM) = 2.356 X RPM OUTLET (.08 SQ. FT. INSIDE) INLET (.13 SQ. FT. INSIDE) MAX. RPM = 4508 RPM
 WHEEL DIAMETER - 9" (3 1/2" X 3 1/2" OUTSIDE) (5" DIA. OUTSIDE)

PWB-9

VOL	VEL	.50 SP		1.0 SP		1.5 SP		2.0 SP		2.5 SP		3.0 SP		3.5 SP		4.0 SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	1000	1170	0.02	1557	0.03	1871	0.05	-	-	-	-	-	-	-	-	-	-
96	1200	1232	0.02	1600	0.04	1901	0.05	2167	0.08	-	-	-	-	-	-	-	-
112	1400	1300	0.02	1652	0.04	1944	0.06	2200	0.08	2431	0.11	2643	0.13	-	-	-	-
128	1600	1374	0.03	1710	0.05	1992	0.07	2239	0.1	2465	0.12	2674	0.15	2867	0.17	3050	0.2
144	1800	1451	0.04	1774	0.06	2046	0.08	2287	0.11	2507	0.13	2710	0.16	2900	0.19	3079	0.22
160	2000	1538	0.05	1843	0.07	2106	0.1	2339	0.12	2554	0.15	2752	0.18	2938	0.21	3114	0.24
176	2200	1627	0.06	1918	0.08	2170	0.11	2398	0.14	2606	0.17	2798	0.2	2981	0.23	3153	0.26
192	2400	1718	0.07	1996	0.1	2239	0.13	2459	0.16	2663	0.19	2850	0.22	3030	0.25	3198	0.29
208	2600	1810	0.08	2077	0.11	2312	0.14	2526	0.17	2723	0.21	2907	0.24	3082	0.28	3245	0.31
224	2800	1907	0.1	2160	0.13	2389	0.16	2596	0.2	2787	0.23	2967	0.27	3138	0.3	3300	0.34
240	3000	2003	0.12	2250	0.15	2467	0.18	2669	0.22	2856	0.26	3032	0.29	3197	0.33	3356	0.37
256	3200	2105	0.14	2339	0.17	2550	0.21	2745	0.25	2927	0.28	3098	0.32	3259	0.36	3416	0.4
272	3400	2209	0.16	2429	0.2	2634	0.23	2823	0.27	3001	0.31	3167	0.35	3326	0.4	3478	0.44
288	3600	2307	0.18	2522	0.22	2718	0.26	2902	0.3	3075	0.35	3240	0.39	3396	0.43	3543	0.48
304	3800	2410	0.21	2616	0.25	2808	0.29	2986	0.34	3153	0.38	3316	0.43	3466	0.47	3613	0.52
320	4000	2518	0.24	2718	0.28	2900	0.33	3072	0.37	3237	0.42	3392	0.47	3541	0.51	3684	0.56
336	4200	2626	0.27	2810	0.32	2992	0.37	3158	0.41	3317	0.46	3469	0.51	3616	0.56	3755	0.61
352	4400	2728	0.31	2914	0.36	3082	0.4	3248	0.46	3401	0.5	3550	0.56	3695	0.61	3832	0.66
368	4600	2839	0.35	3014	0.4	3182	0.45	3337	0.5	3489	0.55	3634	0.61	3773	0.66	3909	0.71
384	4800	2947	0.39	3114	0.44	3278	0.5	3429	0.55	3580	0.61	3721	0.66	3853	0.71	3989	0.77
400	5000	3054	0.44	3215	0.49	3370	0.54	3523	0.6	3668	0.66	3805	0.72	3940	0.77	4066	0.83
416	5200	3160	0.48	3322	0.54	3470	0.6	3620	0.66	3757	0.72	3891	0.77	4024	0.84	4149	0.89
432	5400	3272	0.54	3423	0.6	3570	0.66	3716	0.72	3848	0.78	3984	0.84	4110	0.9	4234	0.96
448	5600	3381	0.6	3529	0.66	3675	0.72	3813	0.78	3946	0.85	4073	0.91	4196	0.97	4320	1.04
464	5800	3491	0.66	3637	0.72	3776	0.79	3911	0.85	4038	0.92	4161	0.98	4283	1.04	4406	1.11
480	6000	3603	0.72	3738	0.79	3878	0.86	4007	0.92	4136	0.99	4256	1.06	4377	1.12	4493	1.19
496	6200	3711	0.79	3850	0.86	3981	0.93	4109	1	4232	1.07	4350	1.14	4470	1.21	-	-
512	6400	3822	0.87	3955	0.94	4084	1.01	4209	1.08	4329	1.15	4443	1.22	-	-	-	-
528	6600	3933	0.95	4062	1.02	4188	1.09	4310	1.17	4428	1.24	-	-	-	-	-	-
544	6800	4045	1.03	4168	1.1	4293	1.18	4411	1.26	-	-	-	-	-	-	-	-
560	7000	4157	1.12	4277	1.2	4398	1.28	-	-	-	-	-	-	-	-	-	-
576	7200	4266	1.21	4387	1.29	4505	1.38	-	-	-	-	-	-	-	-	-	-
592	7400	4378	1.31	4495	1.4	-	-	-	-	-	-	-	-	-	-	-	-
608	7600	4493	1.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PERFORMANCE SHOWN IS FOR INSTALLATION TYPE B--- FREE INLET, DUCTED OUTLET.
 PERFORMANCE RATINGS DO NOT INCLUDE THE EFFECTS OF APPURTENANCES IN THE AIRSTREAM.
 POWER RATING (BHP) DOES NOT INCLUDE DRIVE LOSSES.

PWB-8

4.5 SP		5.0 SP		6.0 SP	
RPM	BHP	RPM	BHP	RPM	BHP
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
3793	0.24	-	-	-	-
3839	0.25	4022	0.29	-	-
3893	0.27	4070	0.31	4408	0.38
3952	0.3	4123	0.33	4454	0.4
4016	0.32	4187	0.36	-	-
4085	0.35	4253	0.38	-	-
4155	0.38	4323	0.42	-	-
4234	0.41	4396	0.45	-	-
4314	0.44	4474	0.48	-	-
4393	0.48	-	-	-	-
4481	0.52	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

FAN Law I.

The performances of fans of all types follow certain laws which are useful in predicting the effect upon performance of changes in the conditions of operation, the duty required of the installation, or the size of the equipment due to the space, power, or speed limitations. In the following law (Fan Law No. 1). Q = air volume and P = static, velocity, or total pressure.

Variation in Fan Speed:

Constant Air Density – Constant System

(a) Q: Varies as fan speed.

(b) P: Varies as square of fan speed.

(c) Power: Varies as cube of fan speed.

Example: A certain fan delivers 12, 000 CFM at a static pressure of 1 in. of water when operating at a speed of 400 rpm and requires an input of 4 hp. If in the same installation 15,000 cfm are desired, what will be the speed, static pressure, and power?

$$\text{Speed} = 400 (15,000/12,000) = 500 \text{ rpm}$$

$$\text{Static pressure} = 1(500/400)^2 = 1.56 \text{ in.}$$

$$\text{Power} = 4 (500/400)^3 = 7.81 \text{ hp}$$

PWB-9

4.5 SP		5.0 SP		6.0 SP		7.0 SP		8.0 SP	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
3249	0.25	-	-	-	-	-	-	-	-
3281	0.27	3440	0.31	3741	0.38	-	-	-	-
3318	0.3	3474	0.33	3770	0.41	4046	0.48	4306	0.56
3358	0.32	3512	0.36	3802	0.43	4076	0.52	4332	0.6
3404	0.35	3556	0.39	3842	0.47	4110	0.55	4363	0.64
3454	0.38	3602	0.42	3885	0.5	4148	0.59	4397	0.68
3507	0.41	3653	0.45	3931	0.54	4188	0.62	4435	0.72
3564	0.45	3708	0.49	3979	0.58	4236	0.67	4477	0.76
3625	0.48	3765	0.53	4031	0.62	4285	0.71	-	-
3688	0.52	3826	0.57	4088	0.66	4335	0.76	-	-
3753	0.57	3888	0.61	4146	0.71	4390	0.81	-	-
3820	0.61	3953	0.66	4207	0.76	4448	0.87	-	-
3891	0.66	4021	0.71	4271	0.82	4508	0.92	-	-
3965	0.71	4091	0.76	4336	0.87	-	-	-	-
4038	0.77	4165	0.82	4404	0.93	-	-	-	-
4113	0.83	4236	0.88	4475	1	-	-	-	-
4190	0.89	4314	0.95	-	-	-	-	-	-
4273	0.96	4389	1.01	-	-	-	-	-	-
4353	1.02	4469	1.09	-	-	-	-	-	-
4433	1.1	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Fan Selection

When operating RPM for design performance is covered by more than one drive RPM range, use drive having top speed closest to operating RPM and select indicated model number.

Example – PWB-8

Design performance –
176 cfm @ 2." S.P.

Operating speed –
3116 RPM @ .07 BHP

Select Model No. PWB8AA
(2100/3142)

Improper selection –
PWB8AB (2794/4200)

NOTE: First letter in model number suffix indicates motor horsepower. Second suffix letter indicates drive.

RADIAL BLADE HIGH PRESSURE BLOWERS (BELT DRIVE)

BELT DRIVE PERFORMANCE

TIP SPEED (FPM) = 2.781 X RPM OUTLET (.09 SQ. FT. INSIDE) INLET (.19 SQ. FT. INSIDE) MAX. RPM = 4480 RPM
WHEEL DIAMETER - 10 5/8" (4" X 3 1/2" OUTSIDE) (6" DIA. OUTSIDE)

PWB-11

VOL		VEL		.50 SP		1.0 SP		1.5 SP		2.0 SP		2.5 SP		3.0 SP		3.5 SP		4.0 SP		4.5 SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90	1000	944	0.01	1282	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
108	1200	978	0.02	1303	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	1400	1019	0.02	1331	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	1600	1064	0.03	1365	0.05	1612	0.07	1831	0.09	2028	0.12	-	-	-	-	-	-	-	-	-	-
162	1800	1114	0.03	1403	0.05	1643	0.08	1855	0.1	2048	0.13	2226	0.16	-	-	-	-	-	-	-	-
180	2000	1167	0.04	1444	0.06	1677	0.09	1885	0.11	2073	0.14	2247	0.17	2410	0.2	2563	0.24	-	-	-	-
198	2200	1223	0.05	1488	0.07	1716	0.1	1917	0.13	2102	0.16	2272	0.19	2431	0.22	2582	0.25	-	-	-	-
216	2400	1280	0.05	1538	0.08	1758	0.11	1955	0.14	2133	0.17	2301	0.2	2458	0.24	2606	0.27	2746	0.31	-	-
234	2600	1340	0.06	1589	0.09	1802	0.12	1993	0.15	2169	0.19	2333	0.22	2486	0.26	2632	0.3	2770	0.33	-	-
252	2800	1404	0.07	1642	0.11	1848	0.14	2035	0.17	2208	0.21	2368	0.24	2518	0.28	2661	0.32	2797	0.36	-	-
270	3000	1467	0.09	1697	0.12	1898	0.15	2079	0.19	2248	0.23	2405	0.26	2552	0.3	2693	0.34	2827	0.38	-	-
288	3200	1531	0.1	1752	0.13	1950	0.17	2127	0.21	2291	0.25	2444	0.29	2589	0.33	2727	0.37	2859	0.41	-	-
306	3400	1600	0.12	1811	0.15	2002	0.19	2175	0.23	2335	0.27	2486	0.31	2629	0.35	2764	0.4	2894	0.44	-	-
324	3600	1668	0.13	1871	0.17	2055	0.21	2225	0.25	2382	0.29	2530	0.34	2669	0.38	2802	0.42	2930	0.47	-	-
342	3800	1734	0.15	1932	0.19	2112	0.23	2277	0.27	2432	0.32	2576	0.36	2713	0.41	2844	0.46	2969	0.5	-	-
360	4000	1804	0.17	1997	0.21	2170	0.26	2332	0.3	2480	0.35	2623	0.39	2757	0.44	2886	0.49	3009	0.54	-	-
378	4200	1876	0.2	2062	0.24	2228	0.28	2385	0.33	2532	0.38	2671	0.42	2805	0.47	2930	0.52	3053	0.58	-	-
396	4400	1944	0.22	2126	0.27	2286	0.31	2442	0.36	2587	0.41	2722	0.46	2852	0.51	2977	0.56	3096	0.61	-	-
414	4600	2019	0.25	2191	0.29	2350	0.34	2499	0.39	2641	0.44	2774	0.49	2901	0.55	3023	0.6	3140	0.65	-	-
432	4800	2091	0.28	2258	0.33	2414	0.38	2560	0.43	2696	0.48	2828	0.53	2951	0.59	3074	0.64	3188	0.7	-	-
450	5000	2163	0.31	2325	0.36	2475	0.41	2620	0.47	2752	0.52	2883	0.57	3006	0.63	3122	0.69	3237	0.75	-	-
468	5200	2236	0.34	2393	0.4	2542	0.45	2681	0.51	2813	0.56	2939	0.62	3058	0.68	3174	0.73	3287	0.79	-	-
486	5400	2310	0.38	2460	0.43	2607	0.49	2742	0.55	2871	0.61	2995	0.66	3114	0.72	3227	0.78	3337	0.85	-	-
504	5600	2383	0.42	2533	0.48	2670	0.53	2803	0.59	2930	0.65	3052	0.71	3169	0.78	3280	0.84	3390	0.9	-	-
522	5800	2456	0.46	2603	0.52	2737	0.58	2869	0.64	2992	0.7	3112	0.77	3226	0.83	3336	0.89	3441	0.96	-	-
540	6000	2531	0.51	2673	0.57	2806	0.63	2934	0.69	3055	0.76	3169	0.82	3283	0.88	3399	0.95	3494	1.01	-	-
558	6200	2607	0.56	2744	0.62	2872	0.68	2999	0.75	3116	0.81	3230	0.88	3342	0.94	3449	1.01	3551	1.08	-	-
576	6400	2683	0.61	2816	0.67	2940	0.73	3062	0.8	3181	0.87	3293	0.94	3401	1.01	3505	1.08	3607	1.15	-	-
594	6600	2758	0.66	2887	0.73	3011	0.79	3129	0.86	3244	0.93	3352	1	3461	1.07	3564	1.14	3663	1.22	-	-
612	6800	2832	0.72	2959	0.79	3081	0.86	3197	0.93	3309	1	3417	1.07	3522	1.14	3621	1.21	3721	1.29	-	-
630	7000	2908	0.78	3031	0.85	3151	0.92	3262	0.99	3374	1.07	3479	1.14	3583	1.21	3682	1.29	3780	1.36	-	-
648	7200	2983	0.84	3104	0.92	3221	0.99	3333	1.06	3439	1.14	3542	1.21	3645	1.29	3741	1.36	3839	1.44	-	-
666	7400	3059	0.91	3178	0.99	3288	1.06	3401	1.14	3506	1.21	3609	1.29	3708	1.37	3804	1.45	3899	1.53	-	-
684	7600	3134	0.98	3252	1.06	3362	1.14	3488	1.21	3573	1.29	3673	1.37	3771	1.45	3864	1.53	3959	1.61	-	-
702	7800	3211	1.06	3325	1.14	3434	1.22	3538	1.29	3641	1.39	3739	1.46	3834	1.54	3927	1.62	4020	1.7	-	-
720	8000	3290	1.14	3399	1.22	3505	1.3	3608	1.38	3708	1.46	3808	1.54	3899	1.63	3992	1.71	4082	1.8	-	-
738	8200	3366	1.22	3474	1.3	3577	1.38	3678	1.47	3776	1.55	3871	1.64	3965	1.72	4055	1.81	4143	1.89	-	-
756	8400	3443	1.31	3546	1.39	3647	1.47	3748	1.56	3842	1.64	3939	1.74	4030	1.82	4119	1.91	4204	2	-	-
774	8600	3517	1.4	3621	1.48	3720	1.57	3819	1.66	3914	1.75	4006	1.83	4096	1.92	4184	2.02	4270	2.1	-	-
792	8800	3595	1.49	3696	1.58	3794	1.67	3888	1.76	3984	1.85	4073	1.94	4160	2.03	4249	2.12	4334	2.22	-	-
810	9000	3673	1.6	3772	1.69	3869	1.78	3962	1.87	4053	1.96	4143	2.05	4229	2.14	4315	2.24	4398	2.33	-	-
828	9200	3750	1.7	3847	1.79	3941	1.88	4034	1.98	4120	2.07	4218	2.16	4297	2.26	4391	2.36	4483	2.45	-	-
846	9400	3825	1.81	3921	1.9	4016	2.09	4106	2.09	4194	2.19	4286	2.28	4363	2.38	4447	2.48	-	-	-	-
864	9600	3906	1.92	3998	2.02	4090	2.12	4177	2.21	4261	2.3	4349	2.41	4433	2.51	-	-	-	-	-	-
882	9800	3983	2.04	4073	2.14	4163	2.24	4251	2.34	4335	2.43	4419	2.53	-	-	-	-	-	-	-	-
900	10000	4060	2.17	4148	2.26	4237	2.36	4322	2.46	4407	2.57	-	-	-	-	-	-	-	-	-	-
918	10200	4138	2.29	4223	2.39	4310	2.49	4395	2.6	4477	2.7	-	-	-	-	-	-	-	-	-	-
936	10400	4215	2.43	4299	2.53	4384	2.63	4469	2.74	-	-	-	-	-	-	-	-	-	-	-	-
954	10600	4293	2.57	4378	2.67	4458	2.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-
972	10800	4370	2.71	4452	2.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
990	11000	4449	2.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PERFORMANCE SHOWN IS FOR INSTALLATION TYPE B--- FREE INLET, DUCTED OUTLET.
 PERFORMANCE RATINGS DO NOT INCLUDE THE EFFECTS OF APPURTANCES IN THE AIRSTREAM.
 POWER RATING (BHP) DOES NOT INCLUDE DRIVE LOSSES.

TIP SPEED (FPM) = 3.273 X RPM OUTLET (.130 SQ. FT. INSIDE) INLET (.256 SQ. FT. INSIDE) MAX. RPM = 4074 RPM
WHEEL DIAMETER - 12 1/2" (5" X 4" OUTSIDE) (7" DIA. OUTSIDE)

PWB-12

VOL		VEL		.50 SP		1.0 SP		1.5 SP		2.0 SP		2.5 SP		3.0 SP		3.5 SP		4.0 SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
130	1000	825	0.02	1125	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
156	1200	858	0.03	1142	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
182	1400	898	0.03	1166	0.06	1392	0.09	-	-	-	-	-	-	-	-	-	-	-	-
208	1600	944	0.04	1196	0.07	1413	0.11	1605	0.14	-	-	-	-	-	-	-	-	-	-
234	1800	995	0.05	1233	0.08	1439	0.12	1626	0.16	1796	0.2	-	-	-	-	-	-	-	-
260	2000	1049	0.06	1274	0.1	1472	0.14	1650	0.18	1816	0.22	1970	0.27	2114	0.32	-	-	-	-
286	2200	1108	0.08	1319	0.11	1509	0.15	1681	0.2	1841	0.24	1990	0.29	2131	0.34	2264	0.39	-	-
312	2400	1166	0.09	1369	0.13	1549	0.17	1715	0.22	1869	0.27	2015	0.32	2152	0.37	2283	0.43	-	-
338	2600	1228	0.11	1420	0.15	1594	0.2	1754	0.25	1903	0.3	2044	0.35	2177	0.4	2305	0.46	-	-
364	2800	1290	0.13	1475	0.17	1642	0.22	1795	0.27	1939	0.33	2076	0.38	2206	0.44	2330	0.5	-	-
390	3000	1357	0.15	1533	0.2	1692	0.25	1839	0.3	1979	0.36	2112	0.42	2238	0.47	2359	0.54	-	-
416	3200	1422	0.17	1592	0.23	1744	0.28	1887	0.34	2022	0.39	2151	0.45	2273	0.52	2391			

PWB-11

4.5 SP		5.0 SP		6.0 SP		7.0 SP		8.0 SP		9.0 SP		10.0 SP		11.0 SP		12.0 SP	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2746	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2770	0.33	2903	0.37	3153	0.45	-	-	-	-	-	-	-	-	-	-	-	-
2797	0.36	2927	0.4	3173	0.48	3404	0.57	-	-	-	-	-	-	-	-	-	-
2827	0.38	2955	0.42	3198	0.51	3426	0.6	3640	0.7	-	-	-	-	-	-	-	-
2859	0.41	2985	0.45	3225	0.54	3449	0.64	3661	0.74	3862	0.84	-	-	-	-	-	-
2894	0.44	3018	0.48	3254	0.58	3476	0.68	3685	0.78	3883	0.88	4074	0.99	-	-	-	-
2930	0.47	3053	0.52	3286	0.61	3504	0.71	3710	0.82	3907	0.92	4096	1.03	4276	1.15	-	-
2969	0.5	3090	0.55	3319	0.65	3535	0.76	3739	0.86	3933	0.97	4119	1.08	4298	1.2	4471	1.32
3009	0.54	3129	0.59	3353	0.69	3566	0.8	3768	0.91	3961	1.02	4146	1.14	4322	1.25	-	-
3053	0.58	3170	0.63	3391	0.73	3602	0.84	3801	0.95	3990	1.07	4172	1.19	4348	1.31	-	-
3096	0.61	3211	0.67	3430	0.78	3637	0.89	3834	1	4022	1.12	4203	1.25	4376	1.37	-	-
3140	0.65	3254	0.71	3470	0.82	3675	0.94	3870	1.06	4055	1.18	4234	1.31	4404	1.43	-	-
3188	0.7	3300	0.76	3513	0.87	3714	0.99	3907	1.11	4090	1.24	4266	1.37	4435	1.5	-	-
3237	0.75	3347	0.8	3557	0.92	3755	1.05	3944	1.17	4126	1.3	4301	1.43	4469	1.56	-	-
3287	0.79	3395	0.85	3601	0.98	3797	1.1	3984	1.23	4165	1.36	4336	1.5	-	-	-	-
3337	0.85	3443	0.91	3649	1.04	3842	1.16	4027	1.3	4203	1.43	4373	1.57	-	-	-	-
3390	0.9	3494	0.96	3696	1.09	3887	1.23	4070	1.36	4245	1.5	4413	1.64	-	-	-	-
3441	0.96	3545	1.02	3744	1.16	3932	1.29	4113	1.43	4286	1.57	4452	1.72	-	-	-	-
3494	1.01	3596	1.08	3792	1.22	3980	1.36	4159	1.5	4329	1.65	-	-	-	-	-	-
3551	1.08	3651	1.15	3845	1.29	4027	1.43	4203	1.58	4372	1.72	-	-	-	-	-	-
3607	1.15	3704	1.22	3895	1.36	4077	1.51	4251	1.66	4417	1.81	-	-	-	-	-	-
3663	1.22	3761	1.29	3948	1.43	4126	1.58	4298	1.74	4465	1.89	-	-	-	-	-	-
3721	1.29	3817	1.36	4003	1.51	4178	1.67	4347	1.82	-	-	-	-	-	-	-	-
3780	1.36	3872	1.44	4057	1.6	4229	1.75	4399	1.91	-	-	-	-	-	-	-	-
3839	1.44	3929	1.52	4111	1.68	4282	1.84	4449	2	-	-	-	-	-	-	-	-
3899	1.53	3990	1.61	4166	1.77	4338	1.93	-	-	-	-	-	-	-	-	-	-
3959	1.61	4049	1.69	4225	1.86	4393	2.03	-	-	-	-	-	-	-	-	-	-
4020	1.7	4109	1.79	4281	1.96	4445	2.12	-	-	-	-	-	-	-	-	-	-
4082	1.8	4170	1.88	4340	2.06	-	-	-	-	-	-	-	-	-	-	-	-
4143	1.89	4231	1.98	4396	2.16	-	-	-	-	-	-	-	-	-	-	-	-
4204	2	4290	2.08	4455	2.26	-	-	-	-	-	-	-	-	-	-	-	-
4270	2.1	4354	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4334	2.22	4415	2.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4398	2.33	4480	2.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4463	2.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PWB-12

4.5 SP		5.0 SP		6.0 SP		7.0 SP		8.0 SP		9.0 SP		10.0 SP		11.0 SP		12.0 SP	
RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2427	0.52	2544	0.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2450	0.56	2564	0.62	2783	0.75	2987	0.88	-	-	-	-	-	-	-	-	-	-
2476	0.6	2588	0.66	2802	0.8	3003	0.94	3194	1.08	-	-	-	-	-	-	-	-
2505	0.64	2615	0.71	2824	0.85	3022	0.99	3210	1.14	-	-	-	-	-	-	-	-
2538	0.69	2645	0.76	2850	0.9	3045	1.05	3229	1.21	3405	1.36	-	-	-	-	-	-
2573	0.74	2678	0.82	2879	0.96	3069	1.11	3251	1.27	3424	1.43	3591	1.6	-	-	-	-
2610	0.8	2712	0.87	2910	1.02	3096	1.18	3275	1.34	3446	1.51	3610	1.68	3768	1.86	3921	2.04
2649	0.86	2751	0.93	2943	1.09	3126	1.25	3301	1.42	3470	1.59	3631	1.77	3787	1.95	3938	2.13
2693	0.92	2790	1	2978	1.16	3158	1.33	3330	1.5	3495	1.67	3655	1.85	3809	2.04	3958	2.23
2737	0.99	2832	1.07	3015	1.23	3193	1.41	3361	1.58	3524	1.76	3680	1.95	3833	2.14	3980	2.33
2782	1.06	2876	1.14	3056	1.31	3228	1.49	3394	1.67	3555	1.86	3709	2.04	3858	2.24	4004	2.44
2830	1.13	2922	1.22	3098	1.4	3267	1.58	3430	1.76	3587	1.95	3738	2.14	3886	2.35	4030	2.55
2880	1.22	2969	1.3	3142	1.49	3306	1.67	3466	1.86	3622	2.05	3771	2.25	3915	2.45	4057	2.67
2931	1.3	3017	1.39	3186	1.58	3349	1.77	3505	1.96	3658	2.16	3805	2.37	3947	2.57	-	-
2983	1.39	3069	1.48	3233	1.67	3394	1.87	3547	2.07	3696	2.27	3840	2.48	3981	2.7	-	-
3036	1.49	3119	1.58	3281	1.77	3438	1.98	3590	2.18	3736	2.39	3878	2.6	4016	2.82	-	-
3091	1.59	3172	1.68	3332	1.89	3486	2.09	3634	2.3	3777	2.51	3916	2.73	4054	2.96	-	-
3146	1.69	3226	1.79	3383	2	3533	2.21	3679	2.42	3821	2.64	3958	2.87	-	-	-	-
3203	1.8	3282	1.91	3435	2.12	3583	2.34	3726	2.56	3865	2.78	3999	3	-	-	-	-
3261	1.92	3338	2.03	3488	2.24	3633	2.47	3773	2.69	3909	2.92	4044	3.15	-	-	-	-
3318	2.04	3395	2.15	3543	2.38	3685	2.6	3823	2.83	3956	3.06	-	-	-	-	-	-
3376	2.17	3451	2.28	3597	2.51	3738	2.74	3873	2.98	4005	3.22	-	-	-	-	-	-
3438	2.3	3510	2.42	3654	2.66	3791	2.89	3925	3.13	4055	3.38	-	-	-	-	-	-
3497	2.44	3570	2.56	3710	2.8	3846	3.05	3977	3.3	-	-	-	-	-	-	-	-
3559	2.59	3630	2.71	3767	2.96	3901	3.21	4030	3.46	-	-	-	-	-	-	-	-
3621	2.75	3690	2.87	3825	3.12	3957	3.38	-	-	-	-	-	-	-	-	-	-
3683	2.91	3752	3.04	3885	3.29	4013	3.55	-	-	-	-	-	-	-	-	-	-
3745	3.07	3813	3.21	3944	3.47	4071	3.73	-	-	-	-	-	-	-	-	-	-
3809	3.25	3875	3.38	4004	3.65	-	-	-	-	-	-	-	-	-	-	-	-
3871	3.43	3936	3.56	4066	3.85	-	-	-	-	-	-	-	-	-	-	-	-
3936	3.62	4001	3.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4002	3.82	4065	3.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4066	4.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RADIAL BLADE HIGH PRESSURE BLOWERS (BELT DRIVE) BELT DRIVE PERFORMANCE

TIP SPEED (FPM) = 3.534 X RPM
WHEEL DIAMETER - 13 1/2"

OUTLET (.270 SQ. FT. INSIDE)
(7 1/8" X 5 3/4" OUTSIDE)

INLET (.336 SQ. FT. INSIDE)
(8" DIA. OUTSIDE)

MAX. RPM = 4004 RPM

PWB-14

VOL	VEL	.50 SP		1.0 SP		1.5 SP		2.0 SP		2.5 SP		3.0 SP		4.0 SP		5.0 SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
270	1000	806	0.05	1062	0.08	1272	0.13	1453	0.17	1616	0.23	1763	0.28	2027	0.4	-	-
324	1200	856	0.06	1096	0.1	1297	0.15	1474	0.2	1632	0.26	1778	0.31	2039	0.44	-	-
378	1400	914	0.08	1137	0.13	1329	0.18	1500	0.23	1655	0.29	1797	0.35	2054	0.49	2284	0.63
432	1600	977	0.1	1186	0.15	1367	0.21	1532	0.27	1682	0.33	1821	0.4	2073	0.54	2300	0.69
486	1800	1046	0.13	1240	0.19	1412	0.25	1569	0.31	1714	0.38	1850	0.45	2097	0.6	2319	0.76
540	2000	1118	0.16	1299	0.23	1462	0.29	1613	0.36	1752	0.43	1883	0.51	2124	0.67	2343	0.83
594	2200	1192	0.2	1361	0.27	1517	0.34	1661	0.42	1795	0.49	1921	0.57	2156	0.74	2369	0.91
648	2400	1268	0.25	1429	0.32	1576	0.4	1713	0.48	1841	0.56	1964	0.64	2191	0.82	2400	1
702	2600	1346	0.3	1497	0.38	1637	0.46	1768	0.55	1892	0.63	2010	0.72	2230	0.91	2434	1.1
756	2800	1427	0.36	1570	0.45	1703	0.54	1828	0.63	1946	0.72	2060	0.81	2273	1	2472	1.21
810	3000	1508	0.43	1644	0.53	1770	0.62	1890	0.71	2005	0.81	2113	0.91	2320	1.11	2513	1.32
864	3200	1591	0.51	1719	0.61	1840	0.71	1954	0.81	2065	0.91	2170	1.01	2370	1.23	2558	1.45
918	3400	1673	0.6	1796	0.71	1912	0.81	2022	0.92	2128	1.02	2229	1.13	2423	1.35	2605	1.58
972	3600	1757	0.7	1874	0.81	1985	0.92	2091	1.03	2193	1.14	2291	1.26	2479	1.49	2656	1.73
1026	3800	1842	0.81	1954	0.93	2060	1.04	2162	1.16	2259	1.28	2355	1.4	2537	1.64	2709	1.89
1080	4000	1927	0.94	2033	1.06	2136	1.18	2234	1.3	2329	1.42	2421	1.55	2597	1.8	2763	2.06
1134	4200	2012	1.07	2114	1.2	2213	1.32	2308	1.45	2400	1.58	2488	1.71	2659	1.97	2822	2.24
1188	4400	2098	1.22	2196	1.35	2292	1.48	2383	1.62	2471	1.75	2558	1.89	2723	2.16	2881	2.44
1242	4600	2185	1.38	2279	1.52	2371	1.66	2459	1.8	2545	1.94	2628	2.08	2789	2.36	2942	2.65
1296	4800	2271	1.55	2362	1.7	2451	1.84	2537	1.99	2619	2.13	2700	2.28	2856	2.58	3006	2.88
1350	5000	2359	1.74	2447	1.89	2532	2.04	2614	2.2	2695	2.35	2773	2.5	2925	2.81	3071	3.12
1404	5200	2445	1.95	2531	2.11	2613	2.26	2693	2.42	2771	2.58	2848	2.73	2995	3.05	3137	3.38
1458	5400	2533	2.17	2616	2.33	2695	2.49	2773	2.66	2848	2.82	2922	2.98	3066	3.32	3205	3.65
1512	5600	2622	2.41	2700	2.57	2778	2.74	2853	2.91	2927	3.08	2998	3.25	3138	3.59	3274	3.94
1566	5800	2709	2.66	2786	2.83	2860	3.01	2933	3.18	3005	3.36	3075	3.53	3212	3.89	3343	4.24
1620	6000	2798	2.93	2872	3.11	2944	3.29	3015	3.47	3085	3.65	3153	3.84	3286	4.2	3414	4.57
1674	6200	2886	3.22	2958	3.41	3027	3.59	3097	3.78	3165	3.97	3231	4.15	3361	4.53	3487	4.91
1728	6400	2974	3.53	3043	3.72	3113	3.92	3179	4.11	3246	4.3	3310	4.49	3437	4.88	3559	5.27
1782	6600	3063	3.86	3131	4.06	3197	4.26	3262	4.45	3326	4.65	3389	4.85	3513	5.25	3633	5.65
1836	6800	3151	4.21	3218	4.41	3283	4.62	3347	4.83	3409	5.03	3470	5.23	3591	5.64	3708	6.06
1890	7000	3240	4.58	3305	4.79	3367	5	3430	5.21	3491	5.42	3551	5.63	3668	6.05	3783	6.48
1944	7200	3329	4.97	3392	5.19	3452	5.4	3514	5.62	3573	5.84	3633	6.06	3748	6.49	3860	6.93
1998	7400	3417	5.38	3479	5.61	3539	5.83	3599	6.05	3656	6.27	3713	6.49	3826	6.94	3936	7.39
2052	7600	3507	5.82	3567	6.05	3625	6.28	3683	6.51	3740	6.73	3796	6.97	3906	7.42	-	-
2106	7800	3596	6.27	3654	6.51	3712	6.75	3768	6.98	3823	7.22	3878	7.45	3986	7.92	-	-
2160	8000	3685	6.76	3742	7	3798	7.24	3853	7.48	3908	7.73	3961	7.96	-	-	-	-
2214	8200	3774	7.26	3830	7.52	3885	7.76	3939	8.01	3991	8.25	-	-	-	-	-	-
2268	8400	3863	7.79	3918	8.05	3972	8.31	-	-	-	-	-	-	-	-	-	-
2322	8600	3952	8.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PERFORMANCE SHOWN IS FOR INSTALLATION TYPE B--- FREE INLET, DUCTED OUTLET.
PERFORMANCE RATINGS DO NOT INCLUDE THE EFFECTS OF APPURTENANCES IN THE AIRSTREAM.
POWER RATING (BHP) DOES NOT INCLUDE DRIVE LOSSES.

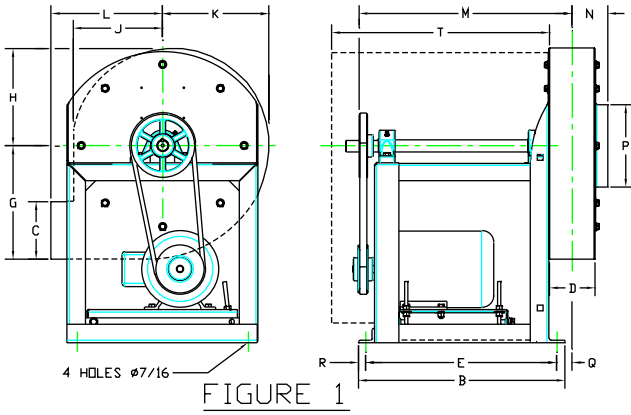


FIGURE 1

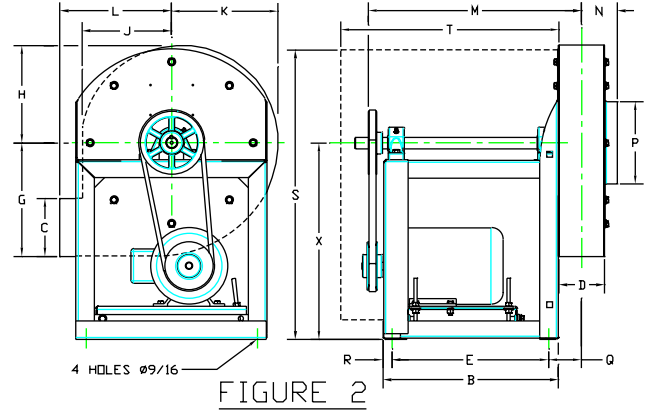
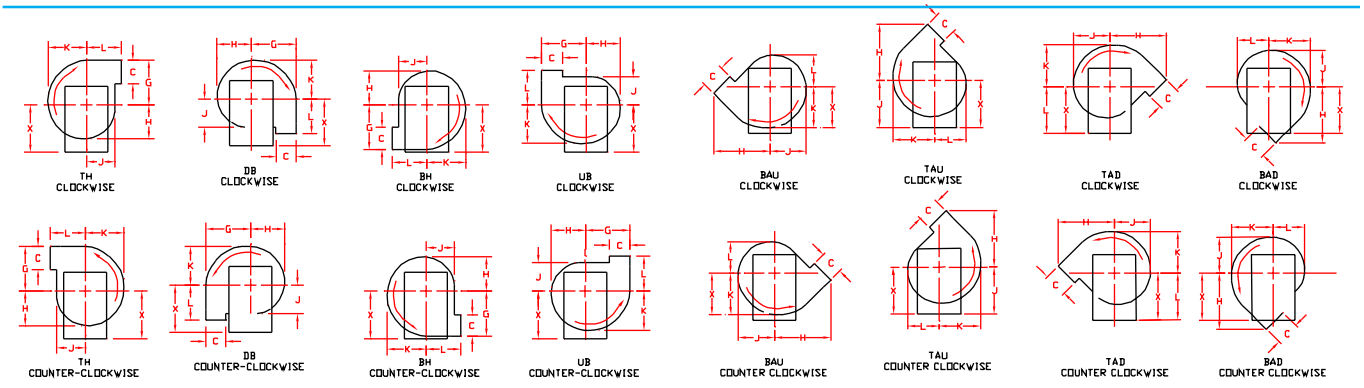


FIGURE 2

ALL POSITIONS VIEWED FROM DRIVE SIDE



CERTIFIED DEMINSON PRINTS FURNISHED UPON REQUEST.

BLOWER	FIG.	WHEEL DIA.	SHAFT DIA.	A	B	C	D	E	F	G	TH, DB, BH, UB STRAIGHT DISCH.				ANGULAR DISCH.				M	N	P	Q	R	S	T	X
											H	J	K	L	H	J	K	L								
PWB-8	1	7 3/4	3/4	9 1/4	15 1/2	3	3	14-1/4	7 1/2	6 5/8	5 3/8	4 7/8	5 7/8	5 7/8	8 3/4	5 5/8	6	5	17 1/4	2 5/8	4	15/16	5/8	16 11/16	16	12
PWB-9	1	9	3/4	10 1/2	15 1/2	3 1/2	3 1/2	14 1/4	8 3/8	7 1/2	6 3/8	5 3/4	6 7/8	6 3/4	10	6 5/8	7	5 7/8	17 1/4	2 7/8	5	1 3/16	5/8	17 5/16	16	12
PWB-11	1	10 5/8	3/4	12 7/8	15 1/2	4	3 1/2	14 1/4	10 3/4	8 5/8	7 1/4	6 1/2	8	7 5/8	11 3/8	7 5/8	8	6 5/8	17 3/4	2 7/8	6	1 3/16	5/8	20 9/16	17	14
PWB-12	2	12 1/2	1	16 3/8	15	5	4	13 1/2	14 3/4	10	8 1/4	7 1/2	9	9 5/8	13 11/16	9	9 5/16	7 3/4	20 1/2	3 1/8	7	2 3/4	3/4	24 5/8	20	17
PWB-14	2	13 1/2	1	17 5/8	15	7 1/8	5 3/4	13 1/2	16	11 1/2	10 1/2	9 5/8	11 3/8	11	15 7/8	11 3/8	11 9/16	10 1/16	21	4	8	3 5/8	3/4	25 7/8	20	17



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RBB-1
MM-19030--November 2001--2.5M
Printed in U.S.A.